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SCIENTIFIC-ATLANTA, INC.			MENDOZA, JUNIOR O	
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LAWRENCEVILLE, GA 30044			2423	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/663,037	NAIR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	JUNIOR O. MENDOZA	2423	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 September 2008.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3,5 and 7-40 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,5 and 7-40 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments filed 09/29/2008 have been fully considered but they are not persuasive.

Regarding **claims 14 and 33**, applicant claims that office action failed to present evidence of "compressing the received video in a manner that varies based on one or more characteristics of the received video stream".

*However, the examiner respectfully maintains that Frost discloses the element above. For example, paragraphs [0008] discloses that the data is initially stored and compressed in order to allow the quality of the compressed data to be as close as possible to the quality of the original video data.*

[0008] Typically, when the data is first stored in the HDD, it is stored in a compressed form to allow the quality of the data, when it is subsequently selected to generate a video display, to be as near as possible to the quality of display which would be achieved at the original scheduled time of display. In accordance with the present invention, at a time after the initial storage of the data in the HDD, portions of data are selected and then compressed again, thereby reducing the storage space taken up by that portion of

data. This frees up storage space in the HDD, which then becomes available for the subsequent storage of newly received data as and when required.

*Moreover, paragraphs [0004] and [0005] teach that at an instant decided by any combination of the control parameters, the data is compressed and stored in a compressed condition. Where the combination of **control parameters includes the time the files have been in storage (which is a "file characteristic")** and the storage space available. Therefore, when a data file is initially compressed, i.e. newly added to the hard drive, the compressing device will take into account the time that the file has been present (newly added to the hard drive) in order to allow the compressed file to be as close as possible to the quality of the original video data, which reads on “compressing the received video in a manner that varies based on one or more characteristics of the received video stream”. This process is done by gradually re-compressing the content over and over in order to satisfy storage space necessities, paragraph [0021] lines 18-20, which read on “recompressing the compressed video stream in manner that is responsive to one or more characteristics of the compressed video stream”. In brief, a time stamp of when a file was received is an attribute which characterizes a file in a hard drive memory, which may contain a huge database of files, where such characterization helps identify a file over others.*

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 14, 16, 18, 33 and 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Frost et al. (Pub No US 2002/0039483) Hereinafter referenced as Frost.

Regarding **claim 14**, Frost discloses a method comprising the steps of: receiving a video stream (Paragraph [0004]); compressing the video stream in a manner that varies based on one or more characteristics of the received video stream (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed);

and recompressing the compressed video stream in a manner that is responsive to one or more characteristics of the compressed video stream (Paragraph [0008] [0016] [0017]; once the storage space is reaching its capacity content may be automatically re-compressed in order to free up more storage space).

Regarding **claim 16**, Frost discloses the method of claim 14; moreover, Frost discloses that the compressed video stream is recompressed in a manner that is

responsive to at least one of a format of the compressed video stream, a bit rate of the compressed video stream, a picture size corresponding to the compressed video stream, a frame rate of the compressed video stream, a color characteristics of the compressed video stream, a complexity of the compressed video stream, or frame types that are included in the compressed video stream (Paragraph [0010]; recompression according to the bit rate).

Regarding **claim 18**, Frost discloses the method of claim 14; moreover, Frost discloses that the method is implemented by a television set-top terminal (STT) (Paragraph [0006] and [0007]; broadcast data receiver).

Regarding **claim 33**, Frost discloses a set-top terminal (STT) comprising: an encoder configured to compress a video stream in a manner that is responsive to one or more characteristics of the received video stream (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed);

and an encoder configured to recompress the compressed video stream in a manner that is responsive to one or more characteristics of the compressed video stream, (Paragraph [0008] [0016] [0017]; once the storage space is reaching its capacity content may be automatically re-compressed in order to free up more storage space), the encoders residing in the STT (Paragraph [0006] and [0007]).

Regarding **claim 35**, Frost and Boston disclose all the limitations of claim 35; therefore, claim 35 is rejected for the same reasons as in claim 16.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 15, 17, 34 and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frost in view of Boston et al. (Pub No US 2007/0286581).  
Hereinafter, referenced as Boston.

Regarding **claim 15**, Frost discloses the method of claim 14; However, it is noted that Frost fails to explicitly disclose that the received video stream is compressed in a manner that is responsive to at least one of a format of the received video stream, a bit rate of the received video stream, a picture size corresponding to the received video stream, a frame rate of the received video stream, a color characteristics of the received video stream, a complexity of the received video stream, or frame types that are included in the received video stream.

Nevertheless, in a similar field of endeavor Boston discloses that the received video stream is compressed in a manner that is responsive to at least one of a format of the received video stream, a bit rate of the received video stream, a picture size corresponding to the received video stream, a frame rate of the received video stream, a color characteristics of the received video stream, a complexity of the received video stream, or frame types that are included in the received video stream (Paragraph [0282] also exhibited on fig 37; original video parameters 3704).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another, optimizing the storage space in order to store more content.

Regarding **claim 17**, Frost discloses the method of claim 14; moreover, Frost discloses the step of recompressing the compressed video stream comprises: encoding the decoded video stream (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space).

However, it is noted that Frost fails to explicitly disclose decoding the compressed video stream. Nevertheless, in a similar field of endeavor Boston discloses decoding the compressed video stream (Paragraphs [0066] [0067] and [0281] - [0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another.

Regarding **claim 34**, Frost and Boston disclose all the limitations of claim 34; therefore, claim 34 is rejected for the same reasons as in claim 15.

Regarding **claim 36**, Frost discloses the STT of claim 33; however, it is noted that Frost fails to explicitly disclose that the encoder configured to recompress the compressed video stream is configured to decode the compressed video stream.

Nevertheless, in a similar field of endeavor Boston discloses that the encoder configured to recompress the compressed video stream is configured to decode the compressed video stream (Paragraphs [0066] [0067] and [0281] - [0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another.

6. **Claims 1 – 3, 5, 7 – 9, 23 – 25 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frost in view of Masukura et al (Pub No US 2003/0001964). Hereinafter, referenced as Masukura.

Regarding **claim 1**, Frost discloses method comprising the steps of: compressing a video stream in a first compressed format; storing the video stream encoded in the first compressed format in a storage device (Paragraph [0004]; data is compressed and then the compressed data is stored in memory);

retrieving the video stream compressed in the first compressed format from the storage device (Paragraph [0008]; the compressed data is selected);

compressing the video stream in a second compressed format (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space);

and storing the video stream compressed in the second compressed format in the storage device (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes an encoder, decoding the video stream encoded in the first compressed format; the second compressed format determined based on one or more characteristics of the video stream, wherein the first compressed format is a format of lesser computational complexity than the second compressed format.

Nevertheless, in a similar field of endeavor Masukura discloses that the compressing part includes an encoder (Paragraph [0014] fig 1),

decoding the video stream encoded in the first compressed format (Paragraph [0038] fig 1, decoder 101);

the second compressed format determined based on one or more characteristics of the video stream (Paragraphs [0007] [0035] [0041] fig 1),

wherein the first compressed format is a format of lesser computational complexity than the second compressed format (Paragraphs [0007] [0035] fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of allowing a video content to be compressed in a format that allows a lot more compression than the initial compression format, which frees up space and allows different devices to have access to that video content.

Regarding **claim 2**, Frost and Masukura disclose the method of claim 1; moreover, Frost discloses that the method is implemented by a television set-top terminal (Paragraph [0006] and [0007]).

Regarding **claim 3**, Frost and Masukura disclose the method of claim 1; moreover, Frost discloses that the second compressed format enables a higher compression rate than the first compressed format (Paragraphs [0008] [0010]).

Regarding **claim 5**, Frost discloses a method comprising the steps of: compressing a video stream such that the video stream has a first bit-rate; storing the video stream having the first bit-rate in a storage device (Paragraph [0004]; data is compressed and then the compressed data is stored in memory);

retrieving the video stream having the first bit-rate from the storage device (Paragraph [0008]; the compressed data is selected);

compressing the video stream such that the video stream has a second bit-rate that is lower than the first bit-rate (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space);

and storing the video stream having the second bit-rate in the storage device (Paragraphs [0008] and [0010]),

wherein the method is implemented entirely by a television set-top terminal (Paragraph [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes a decoder and an encoder; decoding the video stream having the first bit-rate; and the second bit-rate based on one or more characteristics of the decoded video stream.

Nevertheless, in a similar field of endeavor Masukura discloses that the compressing part includes a decoder and an encoder (Paragraph [0014] fig 1), decoding the video stream having the first bit-rate (Paragraph [0038] also exhibited on figure 1, decoder 101);

and the second bit-rate based on one or more characteristics of the decoded video stream (Paragraphs [0007] [0035] fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of allowing a video content to be compressed in a format that allows a lot more compression than the initial compression format, which frees up space and allows different devices to have access to that video content.

Regarding **claim 7**, Frost and Masukura disclose the method of claim 5; moreover, Frost discloses that the video stream having the first bit-rate is in a format that requires higher computational complexity (Paragraphs [0008] and [0010]; initially the content is compressed at a higher bit rate which requires more computational power).

Regarding **claim 8**, Frost and Masukura disclose the method of claim 5; moreover, Frost discloses converting a video stream having the first bit-rate into a video stream having the second bit-rate (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose that a video stream is in MPEG-2 format.

Nevertheless, in a similar field of endeavor Masukura discloses that a video stream is in MPEG-2 format (Paragraphs [0007] [0008] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of implementing well known video formats which can be used by devices that were already in the market at the time of the invention.

Regarding **claim 9**, Frost and Masukura disclose the method of claim 5; moreover, Frost discloses converting a video stream having the first bit-rate into a video stream having the second bit-rate (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose that a video stream is in H.264 format.

Nevertheless, in a similar field of endeavor Masukura discloses that a video stream is in H.264 format (Paragraphs [0007] [0008] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of implementing well known video formats which can be used by devices that were already in the market at the time of the invention.

Regarding **claim 23**, Frost discloses a set-top terminal (STT) comprising: a compressing part configured to compress a video stream in a first compressed format (Paragraph [0004]; data is compressed and then the compressed data is stored in memory);

and a compressing part configured to re-compress the compressed video stream in a second compressed format (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space),

the compressing part configured to compress and re-compress residing in the STT (Paragraph [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes a decoder and an encoder, a decoder configured to decompress the video stream encoded in the first compressed format, the re-compression responsive to one or more characteristics of the compressed video stream.

Nevertheless, in a similar field of endeavor Masukura discloses that the compressing part includes a decoder and an encoder (Paragraph [0014] fig 1), a decoder configured to decompress the video stream encoded in the first compressed format (Paragraph [0038] also exhibited on figure 1, decoder 101); the re-compression responsive to one or more characteristics of the compressed video stream (Paragraphs [0007] [0035] fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Masukura, for the purpose of allowing a video content to be compressed in a format that allows a lot more compression than the initial compression format, which frees up space and allows different devices to have access to that video content.

Regarding **claim 24**, Frost and Masukura disclose the STT of claim 23; moreover, Frost discloses that the second compressed format enables a higher compression rate than the first compressed format (Paragraphs [0008] [0010]).

Regarding **claim 25**, Frost and Masukura disclose the STT of claim 23; moreover, Frost discloses re-compressing the first compressed format into the second compressed format (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space).

However, it is noted that the combination of Frost fails to explicitly disclose that the first compressed format is an MPEG-2 format and the second compressed format is an H.264 format.

Nevertheless, in a similar field of endeavor Masukura discloses that the first compressed format is an MPEG-2 format and the second compressed format is an H.264 format (Paragraph [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of converting a MPEG2

format into a MPEG4 format, which allows more compression and in consequence more bandwidth saving and better network management.

Regarding **claim 26**, Frost discloses a set-top terminal (STT) comprising: a compressing part configured to compress a video stream such that the video stream has a first bit-rate (Paragraph [0004]; data is compressed and then the compressed data is stored in memory);

and a compressing part configured to re-compress the decoded video stream such that the re-compressed video stream has a second bit-rate that is lower than the first bit-rate (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space),

a compressing part configured to compress and re-compress residing in the STT (Paragraphs [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes a decoder and an encoder, a decoder configured to decompress the video stream having the first bit-rate, the second bit-rate based to one or more characteristics of the decoded video stream.

Nevertheless, in a similar field of endeavor Masukura discloses that the compressing part includes a decoder and an encoder (Paragraph [0014] fig 1), a decoder configured to decompress the video stream having the first bit-rate (Paragraph [0038] also exhibited on figure 1, decoder 101);

the second bit-rate based on one or more characteristics of the decoded video stream (Paragraphs [0007] [0035] [0041] fig 1),

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of allowing a video content to be compressed in a format that allows a lot more compression than the initial compression format, which frees up space and allows different devices to have access to that video content.

Regarding **claims 27, 28 and 29**, Frost and Masukura disclose all the limitations of claims 27, 28 and 29; therefore, claims 27, 28 and 29 are rejected for the same reasons as in claims 25, 8 and 9, respectively.

Regarding **claim 39**, Frost discloses a method comprising the steps of: storing a video presentation having a first compression format (Paragraph [0004]; data is compressed and then the compressed data is stored in memory);

transcoding a first portion of the video presentation such that the first portion has a second compression format while a second portion remains in the first compression format (Paragraph [0021]; transcoding only the start and end credits of a program);

a decompression part providing the first portion having the second compression format; providing the first portion to the user (Paragraph [0021]);

a decompression part providing the second portion having the first compression format; providing the second portion to the user (Paragraph [0021]).

However, it is noted that Frost fails to explicitly disclose that a decompression part includes a decoder; the second compression format is responsive to one or more characteristics of the compressed video presentation.

Nevertheless, in a similar field of endeavor Masukura discloses a decompression part includes a decoder (Paragraph [0035] fig 1);

the second compression format is responsive to one or more characteristics of the compressed video presentation (Paragraphs [0007] [0035] [0041] fig 1),

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of allowing a video content to be compressed in a format that allows a lot more compression than the initial compression format, which frees up space and allows different devices to have access to that video content.

7. **Claims 10 – 13, 19 – 22, 30 – 32, 37 and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frost in view of Kaars (Pub No US 2003/0066084).  
Hereinafter, referenced as Kaars.

Regarding **claim 10**, Frost discloses a method comprising the steps of: receiving a video stream (Paragraph [0004]);

compressing the received video stream (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed);

and recompressing the compressed video stream in a manner that is responsive to the availability of the computing resources (Paragraph [0008] [0016] [0017]; once the storage space is reaching its capacity content may be automatically re-compressed in order to free up more storage space).

However, it is noted that Frost fails to explicitly disclose compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream.

Nevertheless, in a similar field of endeavor Kaars discloses compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream (Paragraphs [0005] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Kaars, for the purpose of allowing the receiver to be

able to receive and support different types of signal inputs, in order to permit the receiver to record the content locally.

Regarding **claim 11**, Frost and Kaars disclose the method of claim 10; moreover, Frost discloses the step of recompressing the compressed video stream (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space).

However, it is noted that Frost fails to explicitly disclose decoding the compressed video stream; and encoding the decoded video stream.

Nevertheless, in a similar field of endeavor Kaars discloses decoding the compressed video stream; and encoding the decoded video stream (Paragraphs [0014] and [0020]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Kaars, for the purpose of including components that are necessary in order to compress video files from one compression level to another.

Regarding **claim 12**, Frost and Kaars disclose the method of claim 10; moreover, Frost discloses that the computing resources comprise at least one of an instruction execution resource, bus bandwidth, memory capacity, storage capacity, and access to storage capacity (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed).

Regarding **claim 13**, Frost and Kaars disclose the method of claim 10; moreover, Frost discloses that the method is implemented by a television set-top terminal (STT) (Paragraph [0006] and [0007]; broadcast data receiver).

Regarding **claim 19**, Frost discloses a method comprising the steps of: monitoring consumption of computing resources over an extended time period (Paragraphs [0008] [0013] [0016] [0017]; monitoring the storage space available); receiving a video stream (Paragraph [0004]); compressing the received video stream (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed); and recompressing the compressed video stream in a manner that is responsive to the availability of the computing resources (Paragraph [0008] [0016] [0017]; once the storage space is reaching its capacity content may be automatically re-compressed in order to free up more storage space).

However, it is noted that Frost fails to explicitly disclose compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream.

Nevertheless, in a similar field of endeavor Kaars discloses compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream (Paragraphs [0005] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Kaars, for the purpose of allowing the receiver to be able to receive and support different types of signal inputs, in order to permit the receiver to record the content locally.

Regarding **claims 20 and 22**, Frost and Kaars disclose all the limitations of claims 20 and 22; therefore, claims 20 and 22 are rejected for the same reasons as in claim 12 and 13, respectively.

Regarding **claim 21**, Frost and Kaars disclose the method of claim 19; moreover, Frost discloses the step of monitoring consumption of computing resources comprises monitoring user input (Paragraph [0016]).

Regarding **claim 30**, Frost discloses a set-top terminal (STT) comprising: a compressing part configured to compress the video stream (Paragraphs [0005] [0008]); and a compressing part configured to recompress the compressed video stream in a manner that is responsive to the availability of computing resources (Paragraph [0008] [0016] [0017]; once the storage space is reaching its capacity content may be automatically re-compressed in order to free up more storage space), the compressing part residing in the STT (Paragraph [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes an encoder; and compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream.

Nevertheless, in a similar field of endeavor Kaars discloses that the compressing part includes an encoder (Paragraph [0020]),

and compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream (Paragraphs [0005] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Kaars, for the purpose of allowing the receiver to be able to receive and support different types of signal inputs, in order to permit the receiver to record the content locally.

Regarding **claim 31**, Frost and Kaars disclose the STT of claim 30; however, it is noted that Frost fails to explicitly disclose that the encoder configured to recompress the compressed video stream is configured to decode the compressed video stream.

Nevertheless, in a similar field of endeavor Kaars discloses that the encoder configured to recompress the compressed video stream is configured to decode the compressed video stream (Paragraph [0020]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Kaars, for the purpose of including components that are necessary in order to compress video files from one compression level to another.

Regarding **claim 32**, Frost and Boston disclose all the limitations of claim 32; therefore, claim 32 is rejected for the same reasons as in claim 12.

Regarding **claim 37**, Frost discloses a set-top terminal (STT) comprising: a module configured to monitor consumption of computing resources over an extended time period (Paragraphs [0008] [0013] [0016] [0017]); monitoring the storage space available);

a compressing part configured to compress a video stream (Paragraph [0004]; the received content is compressed);

and a compressing part configured to recompress the compressed video stream at a future time that is responsive to availability of computing resources at the future time (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes an encoder; and compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream.

Nevertheless, in a similar field of endeavor Kaars discloses that the compressing part includes an encoder (Paragraph [0020]),

and compressing the received video stream in a manner that varies based on one or more characteristics of the received video stream (Paragraphs [0005] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Kaars, for the purpose of allowing the receiver to be able to receive and support different types of signal inputs, in order to permit the receiver to record the content locally.

Regarding **claim 38**, Frost and Boston disclose all the limitations of claim 38; therefore, claim 38 is rejected for the same reasons as in claim 12.

8. **Claim 40** is rejected under 35 U.S.C. 103(a) as being unpatentable over Frost in view Kaars further in view of Masukura.

Regarding **claim 40**, Frost discloses a method implemented by a television set-top terminal (Paragraph [0006]), comprising the steps of:

compressing a video stream in a first compressed format (Paragraph [0004]);  
storing the video stream compressed in the first compressed format in a storage device (Paragraph [0004]);

retrieving the video stream compressed in the first compressed format from the storage device (Paragraph [0008]);

recompressing the video stream in a second compressed format (Paragraphs [0008] [0010]);

and storing the video stream compressed in the second compressed format in the storage device (Paragraphs [0008] [0010] [0017]);

and wherein the second compressed format enables a higher compression rate than the first compressed format (Paragraphs [0008] [0010]).

However, it is noted that Frost fails to explicitly disclose that the compressing part includes a decoder and an encoder; where the first compressed format varies based on one or more characteristics of the video stream.

Nevertheless, in a similar field of endeavor Kaars discloses that the compressing part includes a decoder and an encoder (Paragraph [0020]),

where the first compressed format varies based on one or more characteristics of the video stream (Paragraphs [0005] [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Kaars, for the purpose of allowing the receiver to be able to receive and support different types of signal inputs, in order to permit the receiver to record the content locally.

However, it is noted that Frost and Kaars fail to explicitly disclose that the first compressed format is an MPEG-2 format and the second compressed format is an H.264 format.

Nevertheless, in a similar field of endeavor Masukura discloses that the first compressed format is an MPEG-2 format and the second compressed format is an H.264 format (Paragraphs [0007] [0035] [0041] fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost and Kaars by specifically providing the elements mentioned above, as taught by Masukura, for the purpose of allowing a video content to be compressed in a format that allows a lot more compression than the initial compression format, which frees up space and allows different devices to have access to that video content.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNIOR O. MENDOZA whose telephone number is (571)270-3573. The examiner can normally be reached on Monday - Friday 9am - 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571)272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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